

NOTES ON THE FLORA OF WORCESTER COUNTY,
MASSACHUSETTS—II

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THE FIRST of this series of "Notes on the Flora of Worcester County, Massachusetts" was published in 1935.¹ Since that time botanical work has been actively carried on within the county which has added over 7000 sheets of Worcester County plants to the herbarium of the Hadwen Botanical Club and increased our knowledge of the known flora of the region by the following list of plants new to the county.

In addition to the list of plants new to the county, it is worthwhile noting that several rare plants have been found in other townships than those mentioned by Jackson,² or rediscovered after a lapse of several years.

Pellaea atropurpurea was first reported from the county in 1900 from the town of Berlin (RHODORA 2: 14). This reference was used by Jackson in 1909 in his "Flora of Worcester County." This past summer what is apparently the original locality was revisited and specimens have been placed in the Herbaria of Clark University and the Worcester Natural History Society. This is the only known station in the county for this very rare fern.

Malaxis unifolia has been reported from Athol and Spencer in addition to former stations in Auburn, Worcester, Upton, Paxton, and Boylston. This seems to be a rather rare and local orchid. *Liparis liliifolia* holds the distinction of being one of the rarest plants in the county. Only one plant in one locality in Sturbridge is known. This single plant has persisted for several years. Jackson lists *Habenaria blephariglottis* from Princeton and *Orontium aquaticum* from Dudley and Princeton. No report since his time has come from Dudley; but it seems rather obvious that his station in Princeton was really in Holden for both these plants have been reported from the same place in this town very close to the Princeton border. This single station for *H. blephariglottis* has been known for many years, but *Orontium* was not reported since Jackson until 1917, and not again until the summer of 1938 when specimens were placed in the Herbarium of the Hadwen Botanical Club.

¹ Potter and Woodward; Notes on the Flora of Worcester County, Massachusetts. RHODORA 37: 80-88. 1935.

² Jackson, Joseph; Flora of Worcester County, Massachusetts. Worcester Nat. Hist. Soc., 3d ed. 1909.

The rare and very local *Clematis verticillaris* is listed by Jackson from Brookfield and Warren. These two stations seem to have disappeared. It was reported from Southbridge in 1928, and only two other stations, one in Hardwick and one in Sutton, are known for the county.

Jackson lists *Cardamine parviflora* from Mt. Wachusett in 1909. Since then it has been found on Mt. Dan in Sturbridge in 1934, 1935, and 1938.

Euphorbia Preslii, reported from Millbury in 1909 by Jackson, was not reported again until 1934, from West Warren.

Jackson's station of *Pedicularis lanceolata* in Leicester is still known and one new station from Uxbridge was added in 1935.

The imposing *Vernonia noveboracensis*, a more commonly southern and western plant, has appeared in Blackstone, Mendon and Uxbridge.

Liatris spicata was first reported for New England in 1932 from Worcester. In 1937 a new station of one plant was reported again from Worcester and another in North Brookfield where several specimens were well established.

Two albino forms are worth noting. *Prunella vulgaris* forma *albiflora*, formerly reported only from Worcester and Princeton, was found in Auburn last summer; and *Polygala paucifolia* forma *alba*, formerly found only in Auburn in 1913, now is known from Millbury and Hubbardston.

The authors wish to extend their sincere thanks to all those who have aided in this work. Special thanks are due to Mrs. Mary C. Dodge for her unfailing interest and careful work and to Mrs. D. L. Salter for her contributions to the families *Cyperaceae* and *Gramineae* as well as for her aid in many other ways.

The plants enumerated in the following list are arranged by families according to the system used in Gray's Manual, 7th edition. In each case the species listed is accompanied by the name of the person who first discovered and reported the plant as growing within the county, the township where found, the date of finding, and, where an herbarium sheet exists, its deposition. For this purpose the following key is used.

C. The Herbaria of Clark University and the Hadwen Botanical Club.

W. The Herbarium of the Worcester Society of Natural History.

G. The Gray Herbarium and the Herbarium of the New England Botanical Club.

OSMUNDA CINNAMOMEA L., forma FRONDOSA (Torr. & Gray)

Britton. W. Worcester, May 9, 1899, *Cora Fairchild Ball*. Also C., no. 4676, Worcester, July 28, 1936, *W. B. Brierly*.

PINUS SYLVESTRIS L. C., no. 1092, Ashburnham, July 17, 1933, *W. H. Hodge*.

SPARGANIUM CHLOROCARPUM Rydb., var. *ACAULE* (Beeby) Fernald. G., no. 60477, Athol, October 2, 1930, *Alfred S. Goodale*. C., no. 4661, brook running into Cedar Pond, Sturbridge, Aug. 1, 1933, *David Potter and Walter H. Hodge*.

DIGITARIA ISCHAEMUM (Schreb.) Muhl. G., no. 2910, Southbridge, September 10, 1894, *Weatherby, Weatherby & Smith*. C., no. 5114, river bank, Lancaster, Sept. 8, 1936, *David Potter*. (*D. humifusa* Pers. of Gray's Manual, 7th ed. See Hitchcock, Manual of the Grasses of the U. S.)

PANICUM LINEARIFOLIUM Scribn. C., no. 4672, Peat Meadow, Worcester, June 18, 1930, *D. L. Salter*. Also C., no. 4675, East Hubbardston Road, Princeton, June 5, 1933, *D. L. Salter*, and C., no. 4827, Sturbridge, July 15, 1935, *Mrs. D. Comins*.

PANICUM BOREALE Nash. G., no. 1115, Worcester, June 22, 1911, *K. M. Wiegand*. C., no. 4671, Peat Meadow, Worcester, June 18, 1930, *D. L. Salter*.

PANICUM SPRETUM Schultes. C., no. 4668, growing in water, North Pond, Milford, June 21, 1931, *D. L. Salter*.

PANICUM TENNESSEENSE Ashe. C., shore of North Pond, Milford, June 21, 1931, *D. L. Salter*. Also C., no. 4673, East Hubbardston Road, Princeton, June 5, 1933, *D. L. Salter*.

HIEROCHLOË ODORATA (L.) Wahlenb. C., no. 8666, Westboro, May 21, 1937, *Cyrus Darling*.

ERAGROSTIS CAPILLARIS (L.) Nees. C., no. 5859, Worcester, July 12, 1936, *D. L. Salter*.

FESTUCA OCTOFLORA Walt. G., one sheet from Uxbridge, *H. G. Jesup* ex herb. Wm. Francis Flint. C., no. 4877, Sturbridge, June 24, 1934, *D. L. Salter*.

CYPERUS HOUGHTONII Torr. C., no. 4544, Lancaster, Aug. 24, 1934, *D. L. Salter*.

CAREX CRAWFORDII Fernald, var. *VIGENS* Fernald. G., no. 4126, South Royalston, July, 1899, *James A. Bates*. C., no. 4538, Lancaster, Aug. 24, 1934, *D. L. Salter*.

CAREX INTERIOR Bailey. C., no. 8647, Westboro, May 27, 1934, *D. L. Salter*.

CAREX BRUNNESCENS Poir. C., no. 4560, Hardwick, May 21, 1933, *D. L. Salter*. Also C., no. 4581, Sturbridge, June 3, 1934, *Mrs. D. Comins* and C., no. 4555, Barre, June 7, 1935, *David Potter*.

CAREX SETACEA Dewey, var. *AMBIGUA* (Barratt) Fernald. C., no. 5812, Sturbridge, July 25, 1936, *Mrs. D. Comins*.

CAREX PANICEA L. C., no. 2704, Bolton, June 3, 1933, *R. H. Lombard*.

HEMEROCALLIS FLAVA L. Leicester, June 8, 1935, *Mrs. Mary C. Dodge*. No herbarium sheet.

TULIPA GESNERIANA L. W., Dudley, June 10, 1869, *F. E. Kimball*. Also Worcester, May 9, 1925, *N. P. Woodward*. A garden escape.

CONVALLARIA MAJALIS L. W., a pink-flowered form, Worcester, May 11, 1936, *Erford Newcomb*.

TRICYRTIS HIRTA Hook., var. NIGRA Hort. C., no. 5698, Worcester, Sept. 28, 1936, *R. S. Illingworth*. A stand of about thirty plants growing in open woods.

This plant is illustrated and described in *Flore des Serres*, vol. 15, second series, no. 5, pl. 1540. 1862–1865. The following excerpt is taken from *The Dictionary of Gardening*, p. 87: "A small genus (five species) of half-hardy perennials, with short creeping rhizomes, natives of the Himalayas, Japan, and China."

POGONIA OPHIOGLOSSOIDES (L.) Ker., forma ALBIFLORA Rand and Redfield. Oxford, July 7, 1928, *Earl W. Bemis*. See *Flora of Mt. Desert*, 152. 1894.

CARYA OVALIS (Wang.) Sarg. W., Worcester (Tatnuck), Feb. 12, 1936, *Clarence W. Kinney*. (*C. microcarpa* in part, of *Gray's Manual*, 7th ed.)

BASSIA HYSSOPIFOLIA (Pall.) Ktze. C., no. 5006, Peat Meadow, Worcester, Aug. 13, 1936, *Mrs. M. C. Dodge*. One plant found Sept. 29, 1935 and about thirty plants Aug. 13, 1936. Native of Southern Europe and the Levant.

SILENE ANTIRRHINA L., var. DIVARICATA Robinson. C., no. 6415, Shrewsbury, Aug. 1, 1937, *Mrs. Mary C. Dodge*.

DELPHINIUM GRANDIFLORUM L., var. ALBUM Hort. W., Worcester (Webster Square), July 20, 1935, *Norman P. Woodward*. Spontaneous; 3 or 4 plants.

ACONITUM NAPELLUS L. W., Dudley, July 20, 1869, *F. E. Kimball*.

DICENTRA SPECTABILIS Lem. W., Dudley, June 10, 1869, *F. E. Kimball*.

HYDRANGEA PANICULATA Sieb. W., waste land, Worcester, Aug. 22, 1925, *Norman P. Woodward*. Plants still standing.

DEUTZIA SCABRA Thunb., var. PLENA Rehd. C., no. 8668, Leicester, July 2, 1937, *G. H. Pride*. Persisting for many years on the site of what was probably an old nursery.

PHYSOCARPUS OPULIFOLIUS (L.) Maxim., var. LUTEUS Kirchn. W., Peat Meadow, Worcester, June 4, 1938, *Norman P. Woodward*.

SPIRAEA THUNBERGII Sieb. W., Peat Meadow, Worcester, April 24, 1927, *Norman P. Woodward*. Established in waste land, persists.

SPIRAEA VAN HOUTTEI Zabel. W., Peat Meadow, Worcester, June 6, 1934, *Norman P. Woodward*.

MALUS ROBUSTA Rehder (*M. baccata* × *pumila*: see Rehder's *Man. Cult. Trees and Shrubs*, p. 394, 1927). W., waste land on June Street, Worcester, July 16, 1938, *Norman P. Woodward*.

AMELANCHIER LAEVIS Wiegand in *RHODORA*, 14: 157. The common

species of the county, with glabrous leaves purplish on expanding. *A. canadensis* of Jackson's Flora in great part.

AMELANCHIER BARTRAMIANA (Tausch) Roemer. Reported as growing on Mt. Wachusett, Princeton, by Nuttall. See Wiegand, RHODORA 14: 160. In the herbarium of the New England Botanical Club represented from Ashburnham (*Knowlton*) and Hubbardston (*Weatherby*).

FILIPENDULA RUBRA (Hill) Robinson. W., waste land, Worcester, July 14, 1937. *Norman P. Woodward*. 3 plants.

FILIPENDULA ULMARIA (L.) Maxim. W., Dudley, July 22, 1869, *F. E. Kimball*.

CLADRASTIS LUTEA (Michx. f.) Koch. W., Worcester, July, 1933, *Doris E. Whittle*. 3 young saplings, spontaneous.

TRIFOLIUM PRATENSE L., forma LEUCOCHRACEUM Asch. & Prantl. C., no. 7774, Worcester, Aug. 13, 1938, *G. H. Pride*. Also W., Worcester, Aug. 31, 1938 and Sept. 17, 1938, *Norman P. Woodward*.

LATHYRUS LATIFOLIUS L. W., old cellar hole, West Auburn, July 13, 1912, *Norman P. Woodward*. Also W., Worcester, June 23, 1934, *Norman P. Woodward*. A white-flowered form has been collected for several years by Mr. Woodward.

OXALIS MONTANA Raf., forma RHODANTHA Fernald. W., Princeton, July 7, 1936, *Mrs. M. C. Dodge*. RHODORA, 22: 143.

EUONYMUS EUROPAEUS L. Worcester, June 4, 1930, *Mrs. Mary C. Dodge*. An escape well established.

ACER PSEUDOPLATANUS L., var. PURPUREUM Loudon. W., Worcester, June 23, 1937, *Norman P. Woodward*. Several young saplings growing spontaneously under a *Forsythia* hedge. Leaves green above and red-brown below. See Rehder's Man. of Cult. Trees and Shrubs, p. 566, 1927.

IMPATIENS BIFLORA Walt., forma PEASEI A. H. Moore. C., no. 5016, Sterling, Aug. 21, 1936, *Mrs. Mary C. Dodge*. A large stand by roadside on Prescott St. Corolla cream-color, with numerous and coalescent pink spots. RHODORA, 19: 115.

IMPATIENS BIFLORA Walt., forma CITRINA Weatherby. C., no. 3547, Worcester, Aug. 16, 1934, *Mrs. Mary C. Dodge*. Also C., no. 4139, Shrewsbury, Aug. 29, 1935, *Mrs. Mary C. Dodge*. RHODORA, 19: 115.

RHAMNUS FRANGULA L. W., spontaneous on the old Kinney Farm, Worcester (Tatnuck), May 30, 1934, *Clarence W. Kinney*.

RHAMNUS DAVURICA Pall., var. NIPPONICA Mak. W., Old Kinney farm, Worcester (Tatnuck), Nov. 4, 1935, *Clarence W. Kinney*.

Professor Rehder states that this is the first specimen of this rare, far Eastern shrub to be reported to the Arnold Arboretum as found growing spontaneously in this country. This species was introduced into the Arnold Arboretum over fifty years ago. See Rehder's Man. of Cult. Trees and Shrubs, p. 591, 1927.

MALVASTRUM COCCINEUM (Pursh) Gray. W., Worcester, June, 1889, *Kitty Ida Fish*. Escaped from cultivation.

HYPERICUM PROLIFICUM L. C., no. 3038, West Brookfield, July 18, 1933, *W. H. Hodge*.

HYPERICUM BOREALE (Britton) Bicknell. G., Douglas, October 29, 1911, *Fernald*. C., no. 2546, Sterling, July 22, 1933, *W. H. Hodge*. Also C., no. 2829, Webster, Aug. 7, 1933, *W. H. Hodge*; and C., no. 5275, Shrewsbury, Sept. 22, 1934, *David Potter*.

VIOLA CUCULLATA Ait., forma ALBIFLORA Britton. G., Leominster, May 30, 1914, *Fernald & Bean*. C., no. 5262, Southboro, May 13, 1936, *David Potter*. Bull. Torr. Bot. Club, 17: 124, 1890.

VIOLA FIMBRIATULA Sm., forma ALBESCENS Farwell. C., no. 4302, Upton, May 25, 1935, *Mrs. Mary C. Dodge*. 3 plants with pure white flowers. Am. Mid. Nat., 11: 66, 1928.

VIOLA LANCEOLATA L. × PRIMULIFOLIA L. C., no. 4278, Worcester, June 22, 1935, *Mrs. Mary C. Dodge*.

ELAEAGNUS ANGUSTIFOLIA L. W., Peat Meadow, Worcester, June 24, 1938, *Norman P. Woodward*.

The Arnold Arboretum states, "We have no specimens of escapes from this region and are glad to have your specimens as a record. We had it only from Missouri and New Mexico as an escape." The Gray Herbarium writes, "We have no specimens of *Elaeagnus angustifolia* as an escape from anywhere in North America . . . Cordial thanks for the specimens."

OENOTHERA PARVIFLORA L. G., Uxbridge, September 9, 1878, *J. W. Robbins* (as *O. Oakesiana*). W., Peat Meadow, Worcester, Aug. 6, 1938, *Norman P. Woodward*. Several plants.

MYRIOPHYLLUM HUMILE (Raf.) Morong, forma CAPILLACEUM (Torr.) Fernald. C., no. 2827, Webster Lake, Webster, Aug. 7, 1933, *W. H. Hodge*. Also C., no. 5814, Coachlace Pond, Clinton, Aug. 19, 1936, *David Potter*; C., no. 7911, Rutland, Sept. 28, 1938, *F. H. Howard*; C., no. 7909, Lake Samoset, Leominster, Oct. 1, 1938, *F. H. Howard*; C., no. 7910, Grafton, Oct. 12, 1938, *F. H. Howard*.

ASTRANTIA MAJOR L. W., Berlin, July 17, 1934, *Mrs. Charles M. Field*. A garden escape.

AEGOPODIUM PODAGRARIA L. W., Hadwen Park, Worcester, June 30, 1934, *Norman P. Woodward*. A fine stand of several plants near pond.

DAUCUS CAROTA L., forma ROSEUS Farwell. W., Peat Meadow, Worcester, Aug. 22, 1918, *Norman P. Woodward*. Rep. Mich. Acad. Sci. 21: 369, 1920.

HOTTONIA INFLATA Ell. C., no. 6921, Cedar brook, Westboro, June 12, 1937, *Cyrus Darling*.

LIGUSTRUM VULGARE L. Worcester, May 24, 1938, *Mrs. Mary C. Dodge*. Waste ground and edge of woods. Three widely separated stations.

HELIOTROPIMUM EUROPAEUM L. W., Worcester, June, 1886, *Kitty Ida Fish*. Spontaneous in garden.

VERBENA BRACTEOSA Michx. C., no. 5045, Worcester, July 27, 1936, *R. H. Lombard*.

TEUCRIUM CANADENSE L. W., border of wet woods, Worcester, Aug. 1, 1934, *Norman P. Woodward*.

PHYSOSTEGIA VIRGINIANA (L.) Benth., var. ALBA Hort. W., Peat Meadow, Worcester, Aug. 14, 1937, *Norman P. Woodward*. Flowers a pure white. A fine station. See Bailey's Cyc. Hort., vol. III, p. 1328, 5th ed., 1906.

LAMIUM AMPLEXICAULE L. C., no. 3629, Worcester, Oct. 3, 1934. A cleistogamous form.

SALVIA PATENS Cav. W., Dudley, June 12, 1869, *F. E. Kimball*.

MENTHA PULEGIUM L. Waste ground, Stafford St., Worcester, Sept. 19, 1935, *Mrs. Mary C. Dodge*. No herbarium sheet.

PHYSALIS ALKEKENGII L. C., no. 5015, Peat Meadow, Worcester, June 21, 1936, *Mrs. M. C. Dodge*.

CHELONE LYONI Pursh. W., Worcester, Sept. 15, 1937, *Norman P. Woodward*. A fine colony, spontaneous and spreading. Rare in New England.

ILYSANTHES ANAGALLIDEA (Michx.) Robinson. G., Southboro, September, 1881, *Walter Deane*. W., C., no. 6249, Millbury, June 29, 1935, *Mrs. M. C. Dodge*.

VERONICA VIRGINICA L. W., Dudley, July 1, 1869, *F. E. Kimball*.

CASTILLEJA COCCINEA (L.) Spreng. A form with yellow floral leaves, growing with the type. W., Worcester, no date, *Edith Billings*.

CATALPA BIGNONIOIDES Walt. W., Worcester, July 2, 1938, *Mrs. M. C. Dodge*. Fully established.

MARTYNIA FRAGRANS Lindl. C., no. 5009, Grafton, Sept. 7, 1936, *Mrs. Mary C. Dodge*. Stray in cultivated ground.

DIANTHERA AMERICANA L. C., no. 5124, swamp, Holden, Aug. 2, 1936, *Cyrus Darling*.

GALIUM SYLVATICUM L. W., Worcester, Aug. 22, 1936, *Norman P. Woodward*. Spontaneous in grassland.

LONICERA TATARICA L. G., North Leominster, May 30, 1914, *Fernald & Bean*. C., no. 7350, Auburn, April 24, 1938, *O. L. Seaver*. Also C., no. 7349, pasture, Shrewsbury, May 17, 1938, *M. E. Marlborough*.

SAMBUCUS CANADENSIS L., forma CHLOROCARPA Rehder. W., Hadwen Lane district, Worcester, Sept. 2, 1934, *Roger H. Hardy*. Four scattered shrubs. See Rehder's Man. Cult. Trees and Shrubs, p. 797, 1927.

Professor Rehder writes, "The plant is in cultivation at this Arboretum and was raised from seed collected near Wilmington Junction, N. H. Your specimen represents the second station for this form, and constitutes the first *spontaneous specimen* in our Herbarium." (Sept. 11, 1934.)

LAGENARIA VULGARIS Ser. Peat Meadow, Worcester, Sept. 20, 1936, *Mrs. Mary C. Dodge*. Noted again in 1937. No herbarium sheet.

LOBELIA CARDINALIS L., forma ALBA (A. Eaton) St. John. W., West Upton, 1890, *Kitty Ida Fish*. Also C., no. 4188, Uxbridge, Sept. 1, 1935, *Dr. M. R. Sharpe*. RHODORA, 21: 217.

LOBELIA CARDINALIS L., forma ROSEA St. John. Brook-bed, Worcester, July 16, 1917, *Mrs. Frank E. Lowe*. RHODORA, 21: 217.

ASTER NOVAE-ANGLIAE L., forma GENESEENSIS House. W., Peat Meadow, Worcester, Sept. 18, 1935, *Norman P. Woodward*.

ASTER VIMINEUS Lam., var. FOLIOLOSUS (Ait.) Gray. W., Peat Meadow, Worcester, Aug. 31, 1936, *Norman P. Woodward*. Rays lilac-tinged.

ASTER PUNICEUS L., var. FIRMUS (Nees) T. & G. W., Worcester, Sept. 14, 1936, *Norman P. Woodward*.

HELIANTHUS ANNUUS L., var. BICOLOR Cockerell. W., Peat Meadow, Worcester, Aug. 31, 1936, *Norman P. Woodward*. Rays red-brown. Two widely separated stations.

ERECHTITES HIERACIFOLIA (L.) Raf., var. INTERMEDIA Fernald. W., Worcester, Aug. 18, 1934, *Norman P. Woodward*. RHODORA, 19: 27.

ERECHTITES HIERACIFOLIA (L.) Raf., var. PREALTA (Raf.) Fernald. W., Worcester, Aug. 18, 1934, *Norman P. Woodward*. RHODORA, 19: 27.

ARCTIUM MINUS (Hill) Bernh., forma LEUCOCEPHALUM House. W., Worcester, Aug. 8, 1919, *Norman P. Woodward*. Bull. N. Y. State Mus. 243-244: 41, 1923.

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NEW PLANTS FROM KENTUCKY

E. LUCY BRAUN

ARABIS **perstellata**, sp. nov. Planta perennis, e basi ramosa; ramis in anthesi 1-5 dm. post anthesim 3-3.5 dm. longis dense stellato-pubescentibus per omnes partes griseis; foliis radicalibus parvis lamina 1-2.5 cm. longa lyrato-pinnatifida petiolo tenui; foliis caulinis valde repando-dentatis vel infimis lyrato-pinnatifidis 1-3 cm. longis 5-8 mm. latis sessilibus basi auriculatis; pedicellis in anthesi 2.5-4 mm. longis deinde elongatis post anthesim ad 8-9 mm. in longitudine; petalis roseis 3-4 mm. longis; siliquis 2 cm. longis.—Wooded hillsides, Elkhorn Creek, Franklin County, Kentucky, May 6, 1936, *Braun*, Ky. no. 1226 (TYPE in Gray Herbarium); April 20, 1939, *Braun*, Ky. no. 2215, and May 11, 1939, *Braun*, Ky. no. 2413 (TOPOTYPES distributed to a number of herbaria).